

ASX Announcement

Investor Presentation at the Global Rare earth Industry Association Conference



27 June 2019

Arafura Resources Limited (ASX:ARU) (Arafura or the Company) is pleased to attach a copy of the presentation for the Global Rare earth Industry Association (GloREIA) Conference in Brussels. GloREIA will develop an EU- based platform of international experts and stakeholders that will prepare and launch an International Association of Rare Earth Industries.

Mr Lloyd Kaiser, Arafura's General Manager Sales and Marketing, presented at the GloREIA conference under the topic of "Toward diversity of supply and sustainable supply chain".

- ENDS -

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Arafura Resources Limited (ASX:ARU)

*“Emerging as Australia’s Next Sustainable Supplier of
NdPr”*

Agenda



2

1. Who we are
2. Resource, Project, Environmental
3. Project Metrics & Financials
4. Technology
5. Markets & Funding
6. Timeline

Important Notice – Disclaimer

3

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4

Ore Reserves

The information in this presentation that relates to Ore Reserves is extracted from Arafura's ASX announcement dated 7 February 2019 (Nolans Project Definitive Feasibility Study) available to view at www.asx.com.au and was completed in accordance with the guidelines of the JORC Code (2012). Arafura confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Ore Reserves estimates in the relevant announcement continue to apply and have not materially changed. Arafura confirms that the form and content in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Mineral Resources

The information in this presentation that relates to Mineral Resources is extracted from Arafura's ASX announcement dated 7 June 2019 (Detailed Resource Assessment Completed) available to view at www.asx.com.au and was completed in accordance with the guidelines of the JORC Code (2012). Arafura confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the Mineral Resources estimates in the relevant announcement continue to apply and have not materially changed. Arafura confirms that the form and content in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Production Targets and Forecast Financial Information

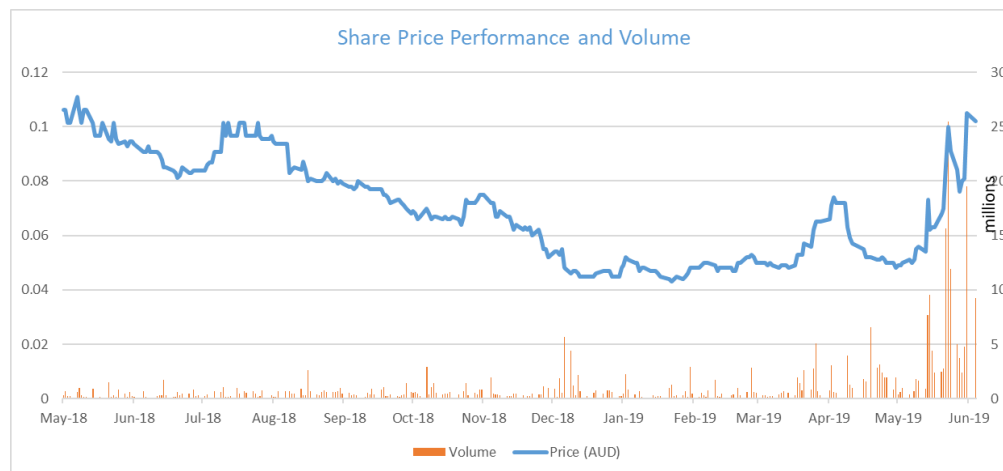
The information in this presentation that relates to production targets and forecast financial information derived from a production target is extracted from an ASX announcement dated 7 February 2019 (Nolans Project Definitive Feasibility Study) available to view at www.asx.com.au. Arafura confirms that all material assumptions underpinning the production target and forecast financial information derived from production targets set out in the announcement released on 7 February 2019 continue to apply and have not materially changed.

Corporate Snapshot

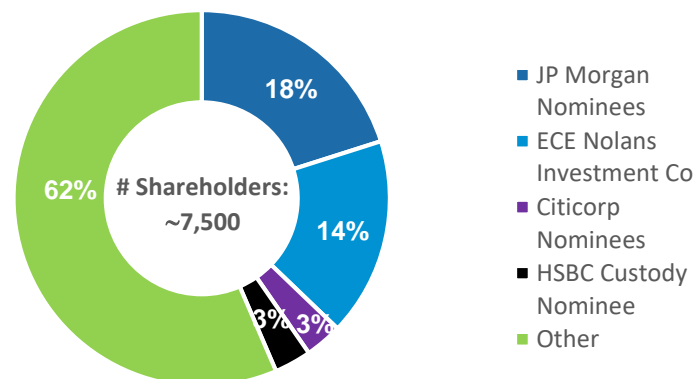


5

Capital Structure	
ASX Code	ARU
ASX Share Price (17 June 19)	\$0.125
Shares on Issue	781m
Market Capitalisation	\$97.6m
12 Month Liquidity	\$39.9m
Cash	\$7.9m
Debt	Nil
Enterprise Value	\$89.7m



- Arafura Resources Limited (**Arafura**) is an ASX-listed company focused on developing its 100%-owned Nolans Rare Earths Project located in the Northern Territory of Australia
- Neodymium-Praseodymium (**NdPr**) are two rare earths which are essential ingredients in rare earth permanent (**NdFeB**) magnets
- NdFeB magnets are used in electric vehicles (**EVs**), clean energy applications and robotics
- Nolans Definitive Feasibility Study (**DFS**) completed February 2019

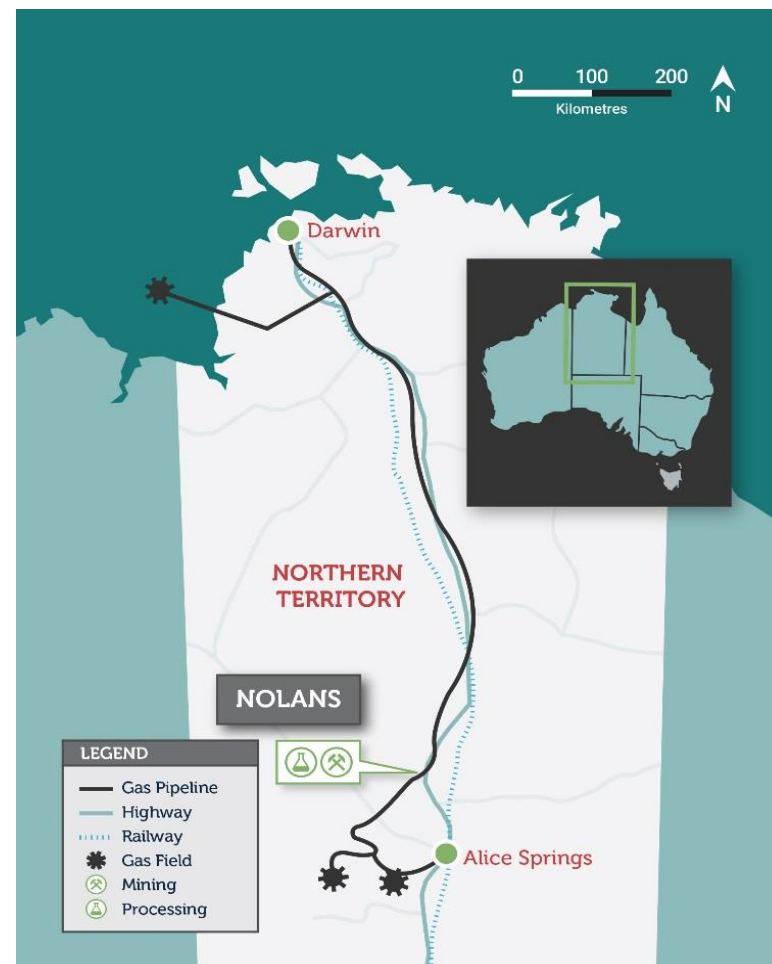


*Cash as at 31 March '19 plus share placement; EV as at 31 March '19.

Nolans DFS Complete

6

- Confirms Nolans as a world class NdPr project
- Annual NdPr production **4,357 tonnes p.a.**
- Ultra-low cost producer at **US\$25.94/kg NdPr**
- Robust economics with average EBITDA A\$377m p.a., NPV₁₀ A\$729m, IRR 17.43%
- Highly leveraged to NdPr (96% of RE revenue) – US\$5/kg increases NPV by A\$130m
- Long-life asset – 23-year mine life based on Ore Reserves only with potential to extend production
- Globally strategic asset – 100% Australian-domiciled mine and processing operation with environmental approval
- Well positioned to feed into forecast NdPr supply shortfall – targeting project commissioning in 2022



Refer ASX announcement 7 February 2019: Nolans Project Definitive Feasibility Study

Long Life Asset

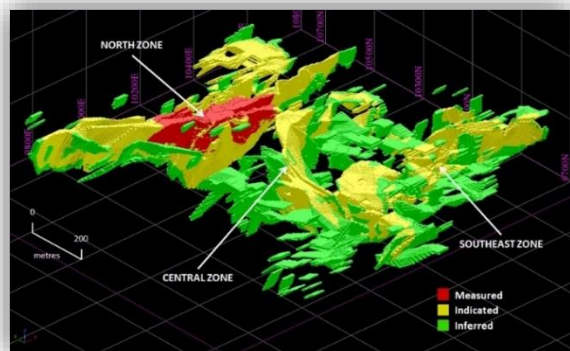
7

RESOURCES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P ₂ O ₅ %	NdPr Enrichment %
Measured	4.9	3.2	13	26.1
Indicated	30	2.7	12	26.4
Inferred	21	2.3	10	26.5
TOTAL	56	2.6	11	26.4

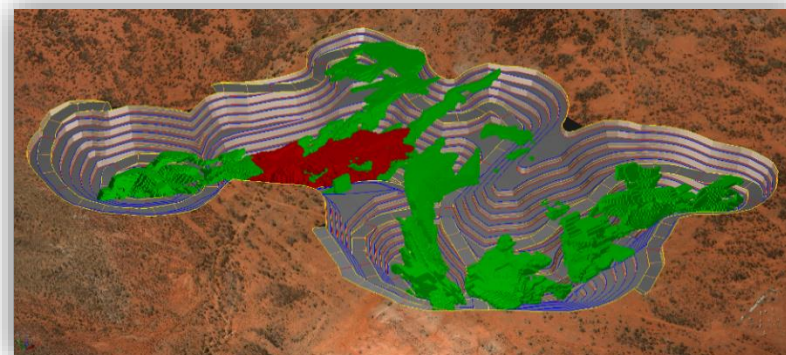
As announced on 7 June 2017. 1.0% TREO cut-off grade. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd₂O₃ and Pr₆O₁₁.

RESERVES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P ₂ O ₅ %	NdPr Enrichment %
Proved	4.3	3.1	13	26.1
Probable	14.9	2.9	13	26.5
TOTAL	19.2	3.0	13	26.4

As announced on 7 February 2019. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd₂O₃ and Pr₆O₁₁.

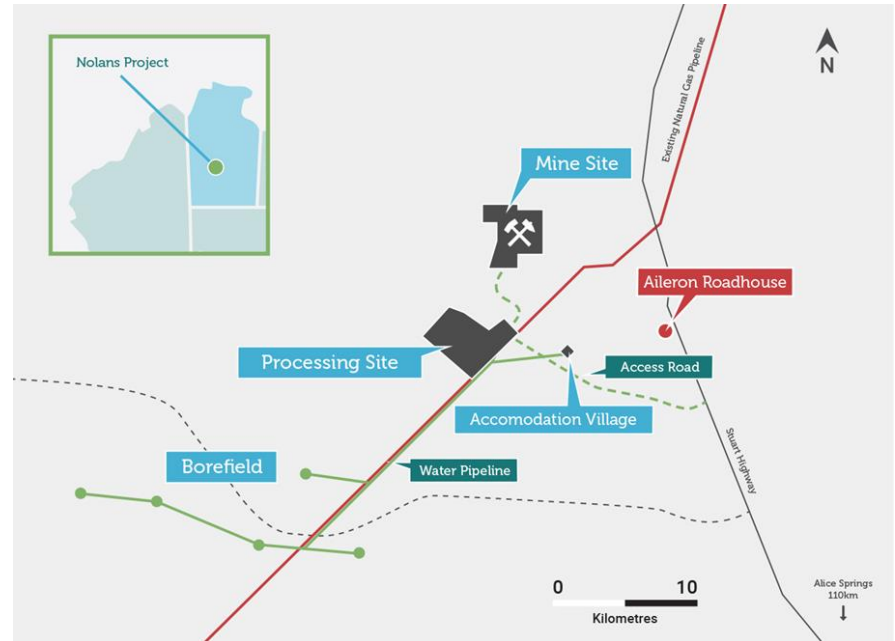
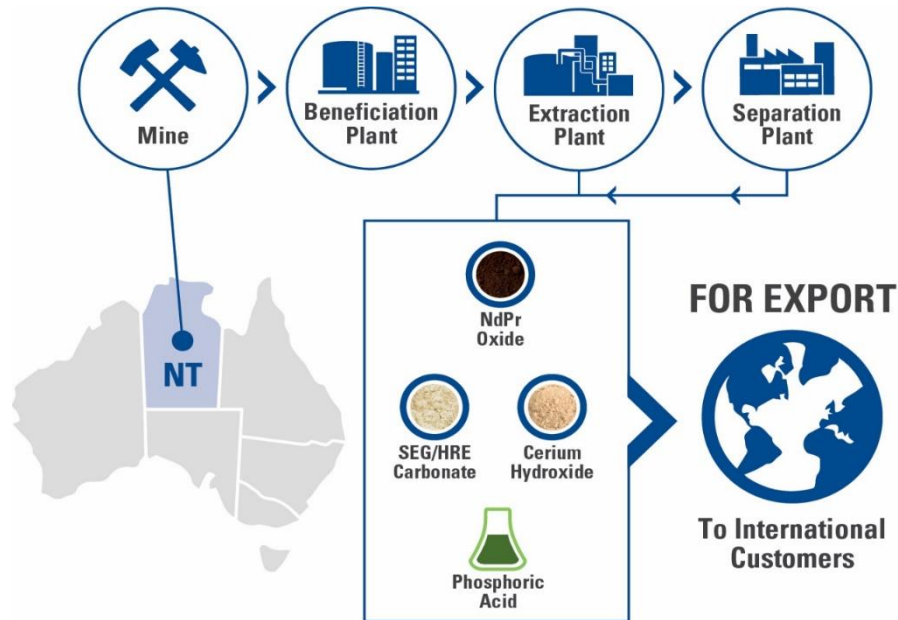


Mineral Resources



Ore Reserves

100% Australian Domiciled Project



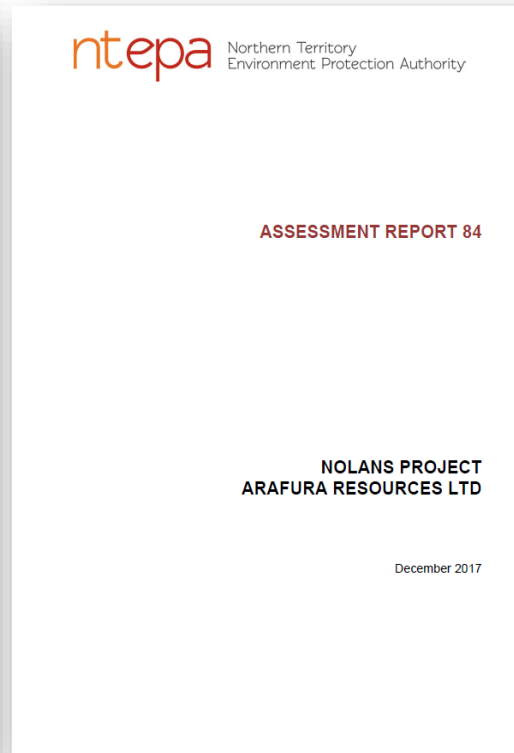
- Tailings and process residues, permanent disposed at site.
- Six engineered cells to store LOM residue production of 20 million tonnes.
- Product traceability and waste management certainty.
- DFS includes fully costed permanent disposal and rehabilitation of waste residues at site.
- Stuart Highway is 10 km east.
- Alice Springs railyard, airport and other services are 135 km south.
- Amadeus natural gas pipeline is adjacent to project site.
- Water supply is 30 km south.
- The Project will import reagents and consumables through both Darwin Port or Port Adelaide

Environmental Approval Secured

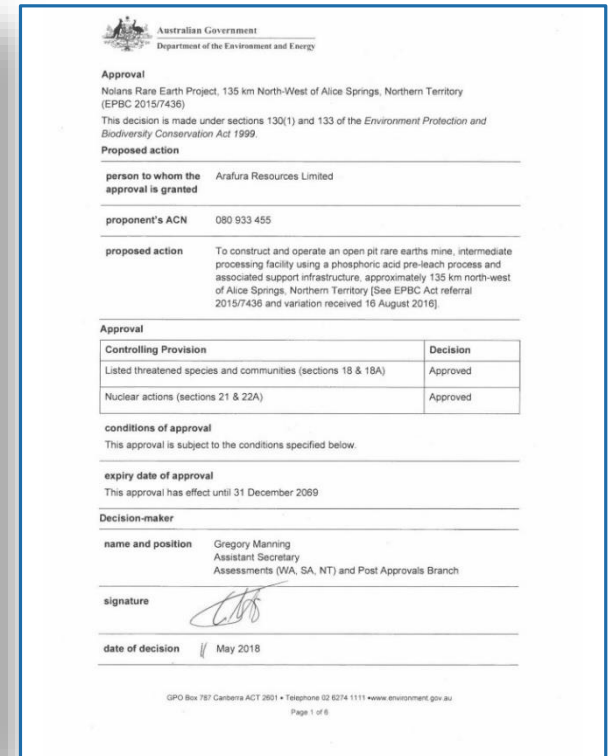
May 2016 Arafura lodged the EIS



December 2017 the Northern Territory EPA recommended approval



May 2018 the Australian Government approved the Project




Approval
Nolans Rare Earth Project, 135 km North-West of Alice Springs, Northern Territory (EPBC 2015/7436)
This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Proposed action
person to whom the approval is granted Arafura Resources Limited
proponent's ACN 080 933 455
proposed action To construct and operate an open pit rare earths mine, intermediate processing facility using a phosphoric acid pre-leach process and associated support infrastructure, approximately 135 km north-west of Alice Springs, Northern Territory (See EPBC Act referral 2015/7436 and variation received 16 August 2016).

Controlling Provision	Decision
Listed threatened species and communities (sections 18 & 18A)	Approved
Nuclear actions (sections 21 & 22A)	Approved

conditions of approval
This approval is subject to the conditions specified below.

expiry date of approval
This approval has effect until 31 December 2069

Decision-maker
name and position Gregory Manning
Assistant Secretary
Assessments (WA, SA, NT) and Post Approvals Branch
signature 
date of decision 11 May 2018

GPO Box 787 Canberra ACT 2601 • Telephone 02 6274 1111 • www.environment.gov.au
Page 1 of 6

Northern Territory Environment Protection Authority (EPA) Recommends Environmental Approval

"The NT EPA considers that the Project can be managed in a manner that avoids significant or unacceptable environmental impacts and risks."

Assessment completed for mining, beneficiation and rare earth extraction

Sustainable supply is our value

10

Extensive community and stakeholder consultation


**Waste management plan
tailings and residue facility**

**Assessing impact from mining,
extraction and transport corridor**

**Surface water & groundwater
management plans**

**Biodiversity studies
on existing flora and fauna**

**Framework for decommissioning
closure and rehabilitation**



**Social license
to operate**

DFS Completed February 2019



11

Mining & Processing		
Mine Life (years)	23	
Concentrate (tpa)	293,000	
Production		
TREO equivalent (tpa)	13,343	
NdPr Oxide (tpa)	4,357	
Cerium Hydroxide (tpa TREO basis)	8,383	
SEG-HRE Carbonate (tpa TREO basis)	603	
Phosphoric Acid (tpa 54% P ₂ O ₅ MGA)	135,808	
Financial	US\$	A\$
Capital Cost (\$m)	726	1,006
Rare Earth Sales Revenue (\$m pa)	379	539
Phosphoric Acid Sales Revenue (\$m pa)	35	50
Mining Costs (\$m pa)	(30)	(43)
Processing Costs (\$m pa)	(103)	(148)
General & Administration Costs (\$m pa)	(15)	(21)
EBITDA (\$m pa)	266	377
KPI Analysis	US\$	A\$
Operating Cost \$/kg NdPr	34.07	48.40
Operating Cost \$/kg NdPr with MGA credit	25.94	36.85
NPV ₁₀ after tax (\$m)	497	729
IRR after tax (%)	17.43%	
After tax payback	Year 5	
IRR 15% @ US\$/kg NdPr	76	
IRR 10% @ US\$/kg NdPr	59	

* Production and financial data is calculated as the annual average following a three year ramp-up and excluding the partial final year production

23 year mine life

4,357 tonnes NdPr p.a.

EBITDA A\$377m p.a.

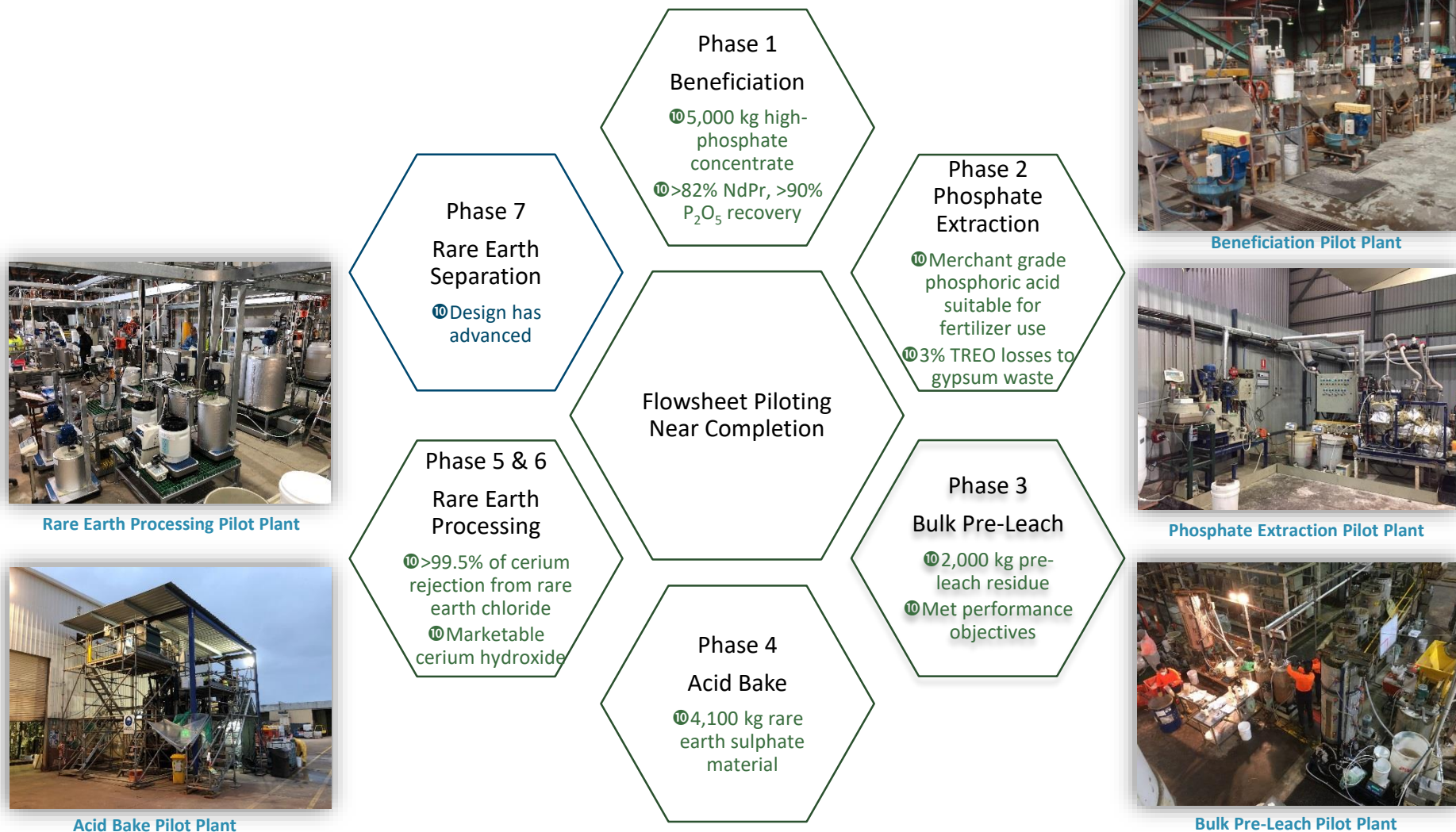
Ultra low OPEX of US\$25.94/kg NdPr

Capital payback in year 5

Highly leveraged to NdPr price

Refer ASX announcement 7 February 2019: Nolans Project Definitive Feasibility Study

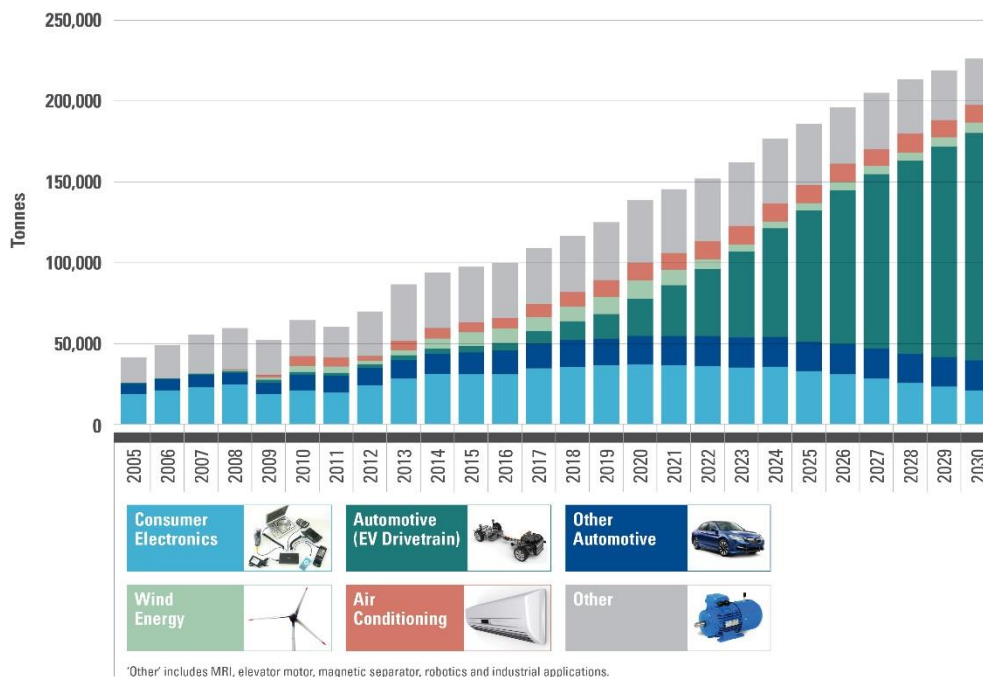
Technology Program



NdPr Market Opportunity

14

NdFeB Magnet Demand by Application

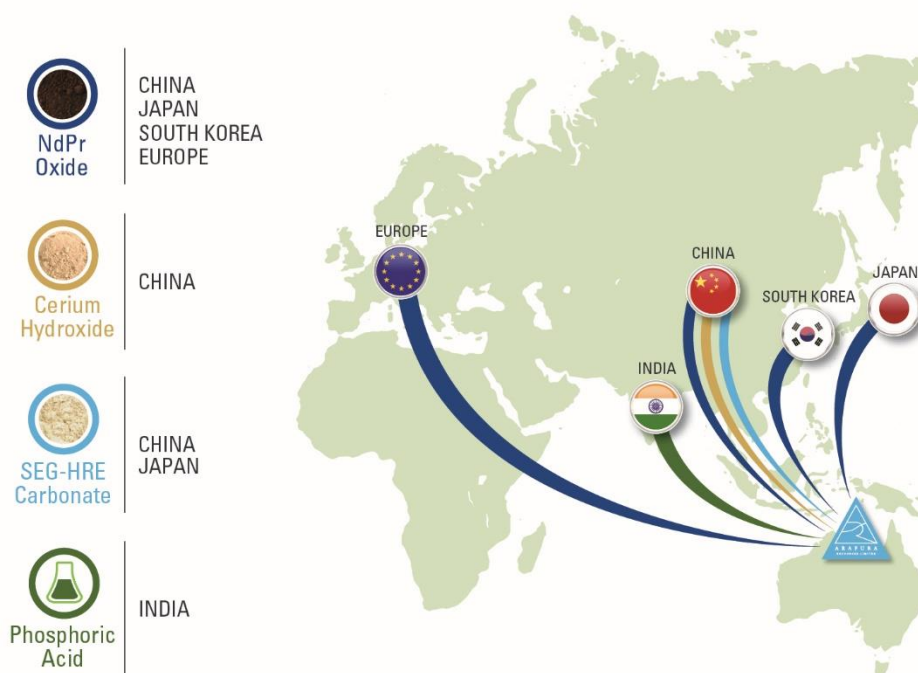


- Underlying demand for NdFeB magnets across all applications is forecast to grow by 6% p.a. over the period to 2030
- NdFeB demand growth for EV applications is more dramatic and forecast to grow by 24% p.a.
- Supply-demand balance achieved through demand destruction in lower quality applications and technology innovations that achieve better use of NdPr in magnet manufacturing
- Demand in applications for consumer electronics and wind turbines will reduce during the forecast period. For some applications substitution will be traded off against reduced performance and cost.
- EV applications require high quality and efficient motors using NdFeB magnets
- New supply will not come on stream fast enough to meet demand from all applications – NdFeB magnets and NdPr oxide will move to the best value in use









Source: Roskill Consulting (November 2018) – Rare Earths Market Analysis

Offtake Strategy

FOR EXPORT TO INTERNATIONAL CUSTOMERS



- Offtake agreements to underpin project funding
- Customer engagement targeted at NdPr users not aligned with China 2025 strategy
- Japan – NdFeB magnet manufacturers
- Europe & Korea – automotive, OEMs, electronics
- China – NdFeB magnet manufacturers with significant export markets

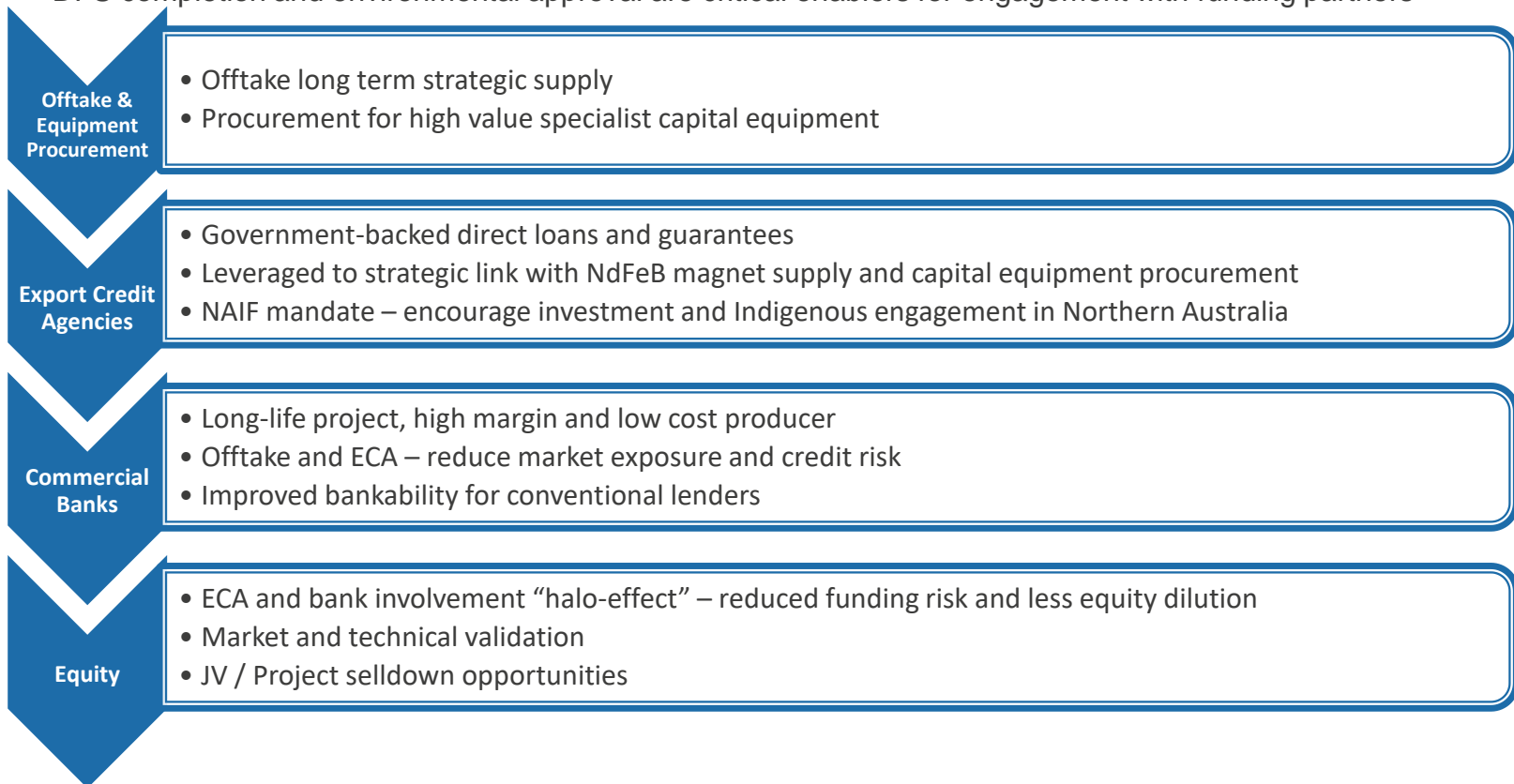
Customer / Target Region		Amount (tonnes p.a.)	Offtake Status	Proportion of Revenue
JingCi Material Science Co.		900	MoU	96%
China		3,457	In progress	
Japan				
South Korea				
Europe				
SEG-HRE Carbonate – targeting contracts with rare earth processors				
China		606 (TREO equivalent)	In progress	1%
Japan				
Cerium Hydroxide – targeting contracts with rare earth processors				
Baotou Xinyuan Rare Earth Hi-tech		8,383 (TREO equivalent)	MoU	3%

Proportion of revenue for rare earth products only

Project Funding Strategy

16

- Arafura looking to secure a A\$1,146m₍₁₎ in new funding to execute the Nolans Project
- Potential sources of funding include equity, debt, JV and/or project selldown with a strategic investor
- DFS completion and environmental approval are critical enablers for engagement with funding partners

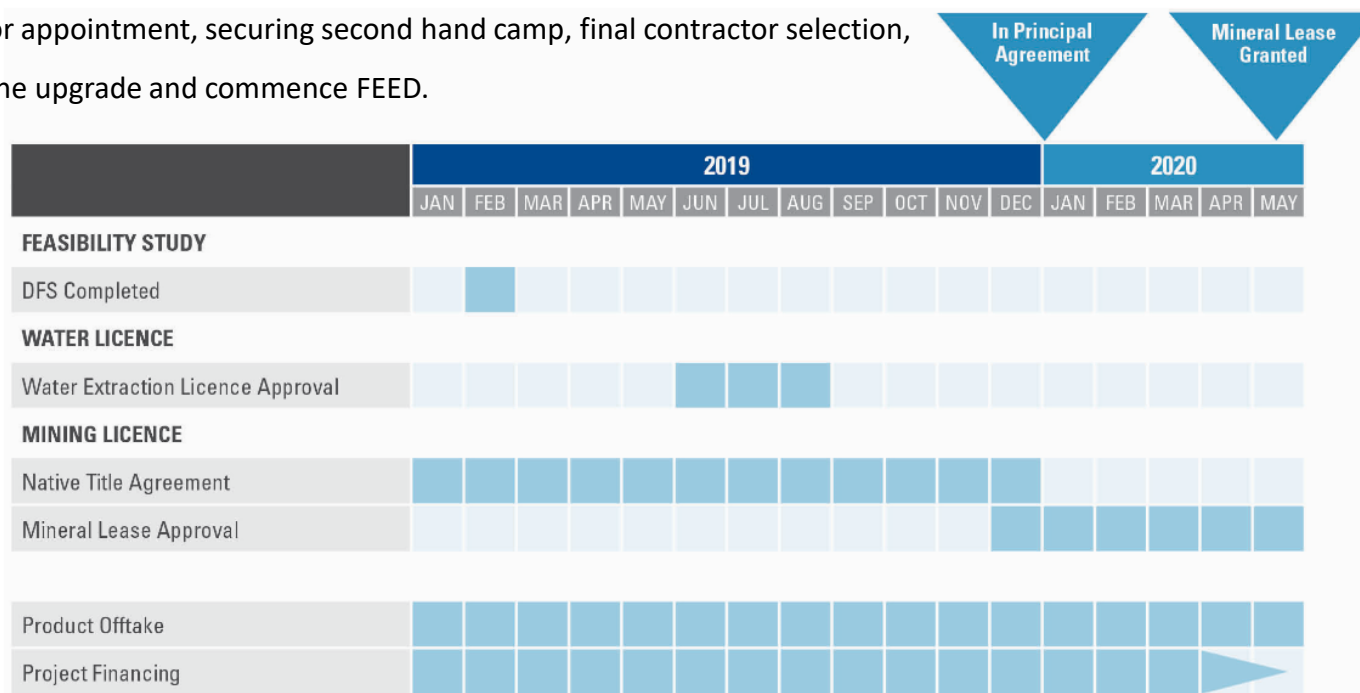


(1) Expected peak funding includes pre-production capital, sulphuric acid plant, working capital and capital escalation. Excludes financing costs.

Strong News Flow

17

- Native Title Agreement.
- Mining Lease.
- Progress for product offtake agreements and project funding.
- Drilling and metallurgical results.
- Contractor appointment, securing second hand camp, final contractor selection,
- Life of mine upgrade and commence FEED.



Estimates of times are indicative only and are subject to change

Sustainable Supply Chain Emerging



18

- Traditional supply chains acting as links that connect inputs to outputs is no longer acceptable. Downstream manufacturing (automotive & electronics) is demanding responsible upstream mining operations.
- Commodities are increasingly split between green and unsustainable operations. Downstream manufacturers will segregate between responsibly sourced material and others.
- NdPr needs to leverage its renewables application to align with responsibly sourced mining operations.
- Early movers in securing their position in the sustainable supply chain will get the advantage and will attract investment over irresponsible operators.
- Technology developments are enablers for increased transparency and traceability from source to final product.
- Customers are faced with intelligent consumers who want to know more about where their consumer goods come from and how they were produced.
- Consumers care about the impact their purchase's have on the environment inside the supply chain.



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E: arafura@arultd.com

Appendices

Experienced Board



MARK SOUTHEY
NON-EXECUTIVE DIRECTOR

Mark Southey has previously held senior executive positions with Honeywell and ABB both in Australia and internationally, and more recently was part of the global executive leadership team within WorleyParsons, where he held the position of Group Managing Director for the Minerals, Metals and Chemicals Sector.



CHRIS TONKIN
NON-EXECUTIVE DIRECTOR

Chris Tonkin has over 35 years' experience as a senior business executive with a broad industry background in business generation, management, and strategy development. He is a member of Arafura Resources' Remuneration and Nomination and Audit and Risk Committees and is also Chairman of Lakes Oil NL.



GAVIN LOCKYER
MANAGING DIRECTOR

Gavin Lockyer's diverse, global experience has provided management and leadership opportunities in a range of disciplines including; Accounting, Financial & Investment Banking, Major Resource Development & Operations, and Global Bank Treasuries. Over the past 20 years his career has exposed him to business practices in North America, Europe, and Australasia.



QUANSHENG ZHANG
NON-EXECUTIVE DIRECTOR

Quansheng Zhang holds a Doctoral degree in Engineering and a Masters degree in Geophysical Prospecting. He is based in Nanjing in the Peoples Republic of China and is the General Manager of Hong Kong East China Non-Ferrous Mineral Resources Co Ltd (HKECE). Quansheng has over 30 years of mineral prospecting and exploration experience, and expertise in mineral resource surveys and geophysics.

Experienced Management



RICHARD BRESCIANINI

GENERAL MANAGER EXPLORATION & DEVELOPMENT

Richard has over 30 years' experience in the minerals industry. He worked with BHP Minerals on base and precious metals exploration programs throughout Australasia and North America, contributing to significant economic discoveries at Eloise (copper-gold) and Cannington (silver-lead-zinc). Thereafter he led the Northern Territory Government's Geological Survey as its Director from 2003 to 2007 before joining Arafura.



PETER SHERRINGTON

CHIEF FINANCIAL OFFICER & COMPANY SECRETARY

Peter commenced employment with Arafura in 2008 as Commercial Manager and was appointed Chief Financial Officer in July 2013. He has more than 20 years' experience in professional and corporate roles in Perth. Prior to working with Arafura, he held senior finance and commercial positions with several ASX and public unlisted entities. He has also worked in public practice for 10 years in the areas of business services and corporate advisory.



LLOYD KAISER

GENERAL MANAGER SALES & MARKETING

Lloyd has more than 10 years' experience in the sales and marketing of industrial minerals into high value sector markets including the nuclear, automotive, and advanced ceramics sectors. Prior to joining Arafura, he held several senior positions in account management, business development and marketing across a diverse range of commodities and chemicals including alumina, coal, industrial minerals, refractories, and ceramics.



BRIAN FOWLER

GENERAL MANAGER NT & SUSTAINABILITY

Brian has worked for over 40 years in private sector mineral companies developing a range of commodities, including rare earths, base metals, and gold. Brian is a member of the Northern Territory Mining Board, Management Board of the Northern Territory Minerals Council of Australia, and a member of Work Health & Safety Advisory Council of the Northern Territory.

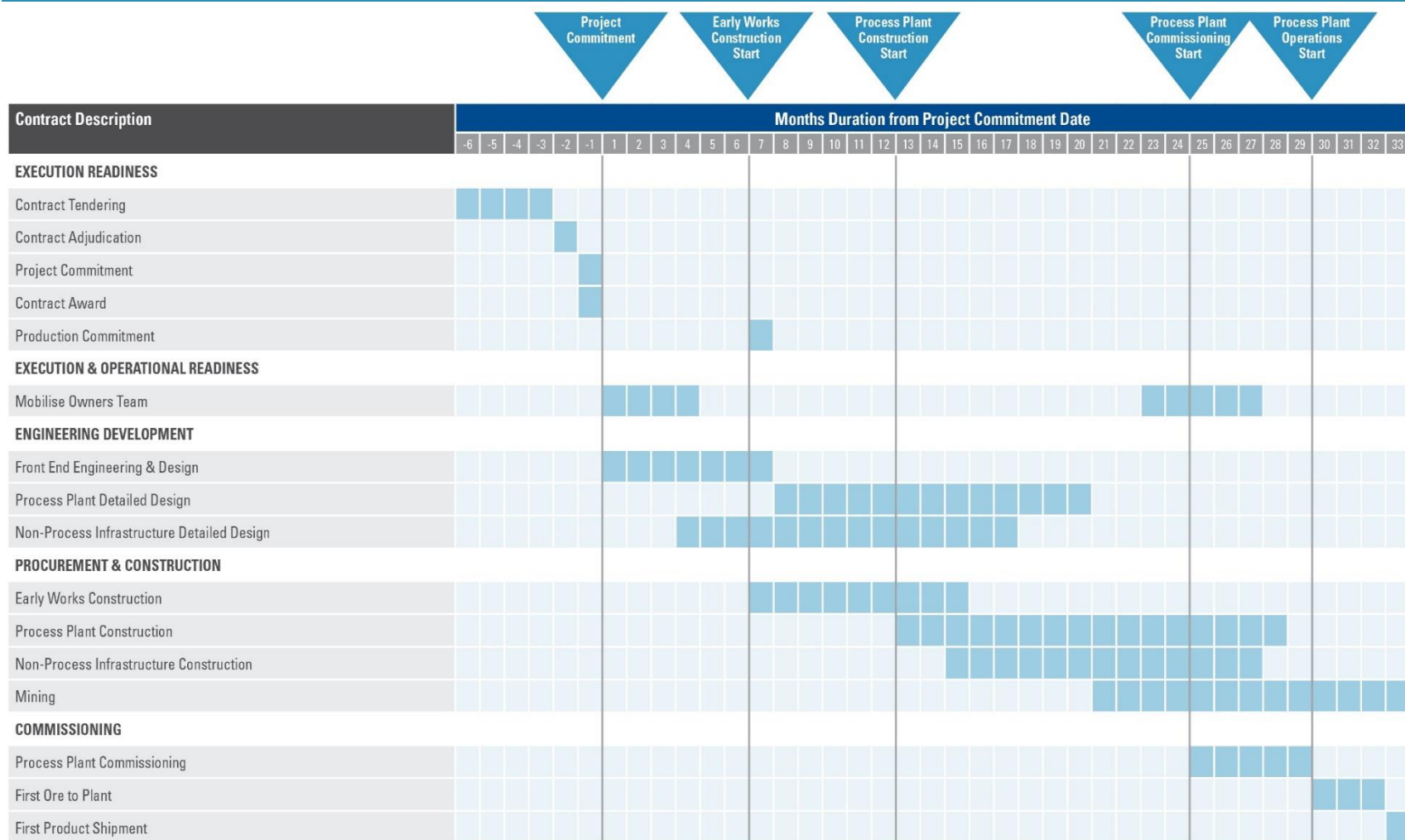


STEWART WATKINS

GENERAL MANAGER PROJECTS

Stewart has 25 years' experience in many facets of the mining industry including operations, engineering consulting, project development and management. Stewart is a Fellow of the AusIMM.

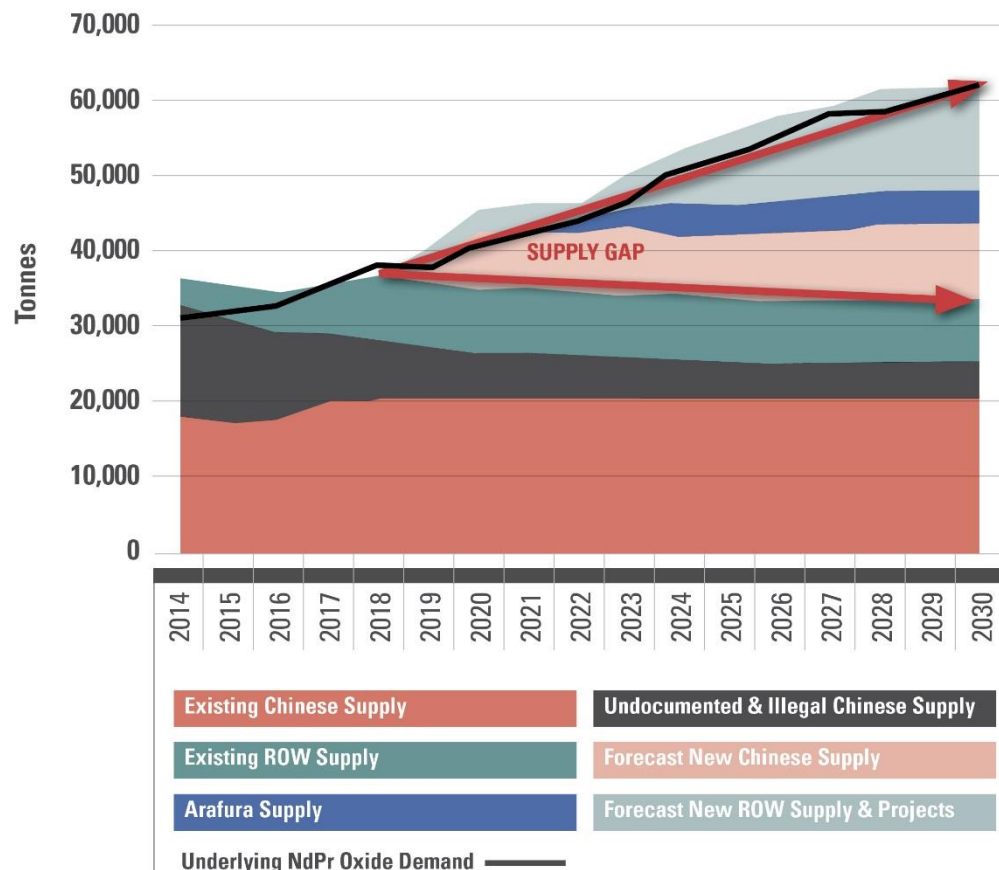
Indicative Production Timeline



Estimates of times are indicative only and are subject to change

Supply & Demand Balance

NdPr Oxide Supply & Demand



- China continues to dominate the global supply chain being the world's largest producer accounting for about 80% of NdPr for global NdFeB magnet production
- Supply reforms, industry consolidation and higher environmental standards will constrain China's ability to rapidly increase NdPr production
- Supply growth of 20,000 tonnes of NdPr oxide required in the next decade
- Lynas Corporation (ASX:LYC) is the only significant miner and processor of rare earth materials outside China enjoying a market capitalisation in excess of \$1bn
- China remains the dominant supplier, however analysts forecast China to become a net importer by the early 2020s

Source: Roskill Consulting (November 2018) – Rare Earths Market Analysis